

CLAIMS:

1/2 and 1/2
2nd edition
1/2 edition

1. A front end for a high frequency receiver (1), which front end comprises a low noise amplifier (2), characterised in that the low noise amplifier is a quadrature low noise amplifier (2-1, 2-2).

2. A high frequency receiver (1), which is provided with a front end comprising a low noise amplifier (2), and which is provided with quadrature mixers (3) coupled to the low noise amplifier (2), characterised in that the low noise amplifier is a quadrature low noise amplifier (2-1, 2-2).

3. The high frequency receiver (1) according to claim 2, characterised in that quadrature paths (I, Q) of the quadrature low noise amplifier (2-1, 2-2) are implemented differentially.

4. The high frequency receiver (1) according to claim 3, characterised in that the differential quadrature low noise amplifier (2-1; 2-2) is constructed as a class AB operating circuit.

5. The high frequency receiver (1) according to one of the claims 2-4, characterised in that the quadrature low noise amplifier (2-1, 2-2) comprises a cascode arrangement of semiconductors (15).

6. The high frequency receiver (1) according to claim 5, characterised in that the semiconductors (15) are of the type MOST, such as NMOST or PMOST, or FET, such as MESFET, or the like.

7. The high frequency receiver (1) according to claim 5 or 6, characterised in that across the cascode arrangement of semiconductors (15) there is connected a capacitor (C).

see preliminary amendment

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8. The high frequency receiver (1) according to one of the claims 2-7, characterised in that the high frequency receiver (1) comprises two quadrature choppers (10-1, 10-2) coupled between respective outputs (4, 5) of the quadrature low noise amplifiers (2-1, 2-2) and respective inputs of the quadrature mixers (3-1, 3-2).

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9. The high frequency receiver (1) according to claim 2, characterised in that the quadrature choppers (10-1, 10-2) and quadrature mixers (3-1, 3-2) are combined to passive quadrature choppers/mixers (fig. 2).

10 10. A communication device, for example a radio receiver, transceiver or a telephone, such as a mobile or cordless telephone provided with a high frequency receiver (1) according to one of the claims 2-9.

11. A quadrature low noise amplifier (2-1, 2-2) for application in the high
15 frequency receiver (1) according to one of the claims 2-9.

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